

Application No. 10/785,531
Response to Office Action

Customer No. 01933

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all previous versions, and listings, of the claims in this application.

Listing of Claims:

1. (Currently Amended) A connector for connecting a pair of tubular components together, comprising:

a pair of generally semi-cylindrical members each having a first edge and a second edge, said semi-cylindrical members being rotatably connected together at said first ~~edge~~ edges and separable from one another at said second ~~edge~~ edges to thereby provide said semi-cylindrical members with an open position in which said second edges are separated from one another and a closed position in which said second edges are opposite one another, each of said semi-cylindrical members including a first engagement portion adapted to engage with a first one of the tubular components and a second engagement portion adapted to engage with a second one of the tubular components, only one of said semi-cylindrical members including an extension portion contiguous with said first engagement portion and extending axially outward from said first engagement portion in a direction away from said second engagement portion to thereby provide said semi-cylindrical member with a larger axial length than the other of said semi-cylindrical members which lacks an extension portion

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and such that the first tubular component is bendable away from
said extension portion; and

locking means arranged in connection with said
semi-cylindrical members for locking said semi-cylindrical
members to one another with said second edges opposite one
another.

2. (Original) The connector of claim 1, further
comprising a hinge for rotatably connecting said first edge of a
first one of said semi-cylindrical members to said first edge of
a second one of said semi-cylindrical members.

3. (Withdrawn) The connector of claim 2, wherein said
hinge comprises a first hinge part arranged defining a pivot axis
arranged on or integrally formed in connection with said first
semi-cylindrical member and a second hinge part arranged on or
integrally formed in connection with said second semi-cylindrical
member, said second hinge part being rotatably mounted on the
pivot axis defined by said first hinge part.

4. (Original) The connector of claim 2, wherein said
hinge is a living hinge integrally formed in connection with said
first and second semi-cylindrical members.

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5. (Currently Amended) The connector of claim 1, wherein said locking means comprise a locking lever pivotally arranged on a first one of said semi-cylindrical members at said second edge of said first semi-cylindrical member, a tension lever connected to said locking lever, and a projection formed at said second edge of a second one of said semi-cylindrical members and including a groove, said locking lever being pivotable to enable said tension lever to ~~engage with~~ enter into said groove.

6. (Withdrawn) The connector of claim 1, wherein said locking means comprise a pair of hook-shaped locking projections arranged on a first one of said semi-cylindrical members and a channel arranged on an inner surface of a second one of said semi-cylindrical members and receivable of said locking projections.

7. (Withdrawn) The connector of claim 6, wherein said locking projections project outward from said second edge of said first semi-cylindrical member and are spaced apart from one another to enable them to flex relative to one another in order to be insertable into said channel.

8. (Withdrawn) The connector of claim 7, wherein said channel includes at least one pair of side recesses arranged such

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that rear-facing surfaces of said locking projections engage with said at least one pair of recesses.

9. (Withdrawn) The connector of claim 1, wherein said locking means comprise an outwardly oriented raised lip formed at said second edge of a first one of said semi-cylindrical members and an inwardly oriented raised lip formed at said second edge of a second one of said semi-cylindrical members, each of said lips having a sloping forward-facing surface and a planar rearward-facing surface which contact one another when said raised lips are in engagement with one another.

10. (Withdrawn) The connector of claim 1, wherein said locking means comprise a pair of hook-shaped locking projections arranged on a first one of said semi-cylindrical members and a cavity extending inward from an outer surface at said second edge of a second one of said semi-cylindrical members and receivable of said locking projections.

11. (Withdrawn) The connector of claim 10, wherein said locking projections project outward from said second edge of said semi-cylindrical member and each includes an interior opening to provide flexibility upon insertion of said locking projections into said cavity.

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12. (Withdrawn) The connector of claim 10, wherein said cavity is defined by opposed side walls, each of said side walls including at least one indentation arranged to engage with said locking projections.

13. (Original) The connector of claim 1, further comprising locking flanges formed on inner surfaces of at least one of said semi-cylindrical members, said locking flanges being adapted to engage with a tubular component.

14. (Withdrawn) The connector of claim 13, further comprising a divider flange formed on the inner surfaces of said semi-cylindrical members and arranged to limit penetration of the tubular components into the connector, said divider flange having a larger height than said locking flanges.

15. (Withdrawn) The connector of claim 1, further comprising a divider flange formed on inner surfaces of said semi-cylindrical members and arranged to limit penetration of the tubular components into the connector.

16. (Currently Amended) The connector of claim 1, wherein ~~each of said semi-cylindrical members includes a first engagement portion adapted to engage with a first one of the tubular~~

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~~components and a second engagement portion adapted to engage with~~
~~a second one of the tubular components, said first and second~~
~~engagement portions having a~~ have different radii of curvature to
thereby enable tubular components having different diameters to
be coupled together by the connector.

17. (Currently Amended) The connector of claim 16, wherein
each of said semi-cylindrical members includes an arcuate lip
formed between said first and second engagement portions and
perpendicular to an axis passing through the connector, said
arcuate lips limiting penetration of a larger diameter one of the
first and second tubular components into the connector.

18. (Currently Amended) The connector of claim ~~16~~, wherein
~~a first one of said semi-cylindrical members includes an axially~~
~~oriented extension portion contiguous with said first engagement~~
~~portion 1, further comprising a hinge for rotatably connecting~~
said first engagement portion of a first one of said
semi-cylindrical members to said first engagement portion of a
second one of said semi-cylindrical members, said hinge being the
only hinge connecting said first and second semi-cylindrical
members together.

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19. (Currently Amended) The connector of claim [[16]] 1, wherein said locking means comprise a locking lever pivotally arranged on only one of said first and second engagement portions of a first one of said semi-cylindrical members, a tension lever connected to said locking lever, and a projection formed on the respective one of said first and second engagement portions of a second one of said semi-cylindrical members, said projection and including a groove, said locking lever being pivotable to enable said tension lever to ~~engage with~~ enter into said groove.

20. (Currently Amended) The connector of claim [[16]] 1, wherein said locking means comprise a locking lever pivotally arranged on each of said first and second engagement portions of a first one of said semi-cylindrical members, a tension lever connected to each of said locking levers, and a projection formed on each of said first and second engagement portions of a second one of said semi-cylindrical members, each of said projections and including a groove, said locking levers being pivotable to enable said tension levers to ~~engage with~~ enter into a respective one of said grooves on said projections.

21. (Original) The connector of claim 1, wherein said semi-cylindrical members are formed from a rigid material.

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22. (Withdrawn) The connector of claim 1, wherein said locking means comprise a flange defining an opening and extending beyond said second edge of a first one of said semi-cylindrical members and a projection formed on an outer surface of a second one of said semi-cylindrical members at said second edge of said second semi-cylindrical member, said projection being receivable in said opening of said flange.

23. (Withdrawn) The connector of claim 22, further comprising a living hinge integrally formed with said first and second semi-cylindrical members for rotatably connecting said first edge of said first semi-cylindrical member and said first edge of said second semi-cylindrical member, said flange and said projection also being formed integral with said first and second semi-cylindrical members.

24. (Withdrawn) The connector of claim 22, wherein said projection includes an angled surface proximate said second-edge of said second semi-cylindrical member and said flange includes a lifting tab at an end apart from said first semi-cylindrical member.

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25. (Original) The connector of claim 1, further comprising a sealing layer arranged to extend circumferentially over inner surfaces of said semi-cylindrical members.

26-38. (Canceled)

39. (New) The connector of claim 1, further comprising locking flanges formed on inner surfaces of said first engagement portions of said semi-cylindrical members.

40. (New) The connector of claim 1, further comprising locking flanges formed on inner surfaces of at least one of said semi-cylindrical members, said locking flanges being adapted to engage with an outer surface of a tubular component.

41. (New) The connector of claim 1, further comprising locking flanges formed on at least one inner surface of at least one of said semi-cylindrical members, said locking flanges being adapted to engage with an outer surface of a tubular component, said locking flanges being spaced apart from axial edges of said at least one of said semi-cylindrical members.

42. (New) The connector of claim 5, wherein said projection is formed on said second semi-cylindrical member.

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43. (New) The connector of claim 5, wherein said groove faces away from said second edge of said second semi-cylindrical member.

44. (New) The connector of claim 16, wherein said first engagement portions have a larger radius of curvature than said second engagement portions, further comprising locking flanges formed on inner surfaces of only said first engagement portions.

45. (New) A connector for connecting a pair of tubular components together, comprising:

a pair of generally semi-cylindrical members each having a first edge and a second edge, said semi-cylindrical members being rotatably connected together at said first edges and separable from one another at said second edges to thereby provide said semi-cylindrical members with an open position in which said second edges are separated from one another and a closed position in which said second edges are opposite one another; and

locking means arranged in connection with said semi-cylindrical members for locking said semi-cylindrical members to one another with said second edges opposite one another,

said locking means comprising a locking lever pivotally arranged on a first one of said semi-cylindrical members, a

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tension lever connected to said locking lever, and a projection formed on a second one of said semi-cylindrical members, said projection including a groove which faces away from said second edge of said second semi-cylindrical member, said locking lever being pivotable to enable said tension lever to extend beyond said second edge of said first semi-cylindrical member and to enter into said groove.

46. (New) The connector of claim 45, further comprising a hinge for rotatably connecting said first edge of said first semi-cylindrical member to said first edge of said second semi-cylindrical member.

47. (New) The connector of claim 45, wherein said hinge is a living hinge integrally formed in connection with said first and second semi-cylindrical members.

48. (New) The connector of claim 45, further comprising locking flanges formed on inner surfaces of at least one of said semi-cylindrical members, said locking flanges being adapted to engage with a tubular component.

49. (New) The connector of claim 45, wherein each of said semi-cylindrical members includes a first engagement portion

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adapted to engage with a first one of the tubular components and a second engagement portion adapted to engage with a second one of the tubular components, said first and second engagement portions having different radii of curvature to thereby enable tubular components having different diameters to be coupled together by the connector.

50. (New) A connector for connecting a pair of tubular components together, comprising:

a pair of generally semi-cylindrical members each having a first edge and a second edge, said semi-cylindrical members being rotatably connected together at said first edges and separable from one another at said second edges to thereby provide said semi-cylindrical members with an open position in which said second edges are separated from one another and a closed position in which said second edges are opposite one another;

locking means arranged in connection with said semi-cylindrical members for locking said semi-cylindrical members to one another with said second edges opposite one another; and

locking flanges formed on an inner surface of at least one of said semi-cylindrical members, said locking flanges being adapted to engage with an outer surface of a tubular component,

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said locking flanges being spaced apart from axial edges of said at least one of said semi-cylindrical members.

51. (New) The connector of claim 50, wherein each of said semi-cylindrical members includes a first engagement portion adapted to engage with a first one of the tubular components and a second engagement portion adapted to engage with a second one of the tubular components, said first and second engagement portions having different radii of curvature to thereby enable tubular components having different diameters to be coupled together by the connector, said locking flanges being arranged on only said first engagement portions of said first and second semi-cylindrical members.